

REMARKS

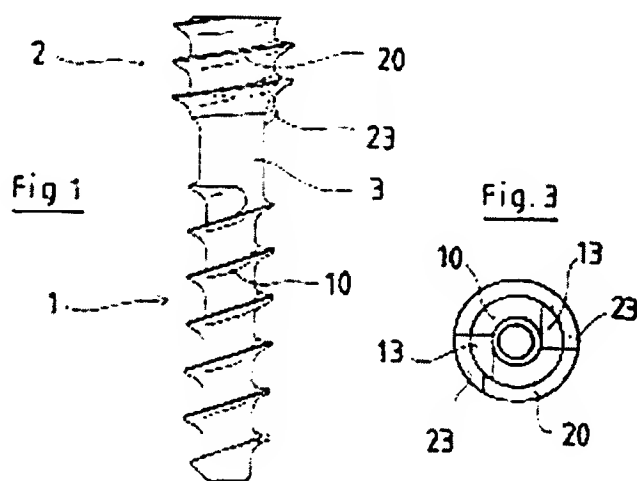
The above-identified application has been reviewed in light of the Non-Final Office Action mailed on July 21, 2009. By the present amendment, the Applicants have amended claims 21, 33, 35, 40 and 44. It is respectfully submitted that the claims pending in the application, namely claims 21, 23-28, 32-36, 40-44, 48 and 49, are fully supported by the specification, introduce no new matter, and are patentable over the cited references.

In the Office Action, claims 21, 23, 24, 27, 32-36 and 40-49 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,001,101 to Augagneur et al. (hereinafter "Augagneur") in view of U.S. Patent No. 3,233,500 to De Vellier (hereinafter "Vellier"). According to the Examiner, Augagneur discloses a surgical tack for attaching material to tissue comprising a head having a drive thread and a barrel portion having a tissue engaging thread, wherein a portion of the drive thread and a portion of the tissue engaging thread define a gap therebetween and the distal end of the drive thread and the proximal end of the tissue engaging thread are in the same plane that extends through a longitudinal axis of the barrel portion. The Examiner relies on Vellier to disclose a drive thread forming an incomplete convolution of the head and a drive thread laterally spaced from a second end of the drive thread.

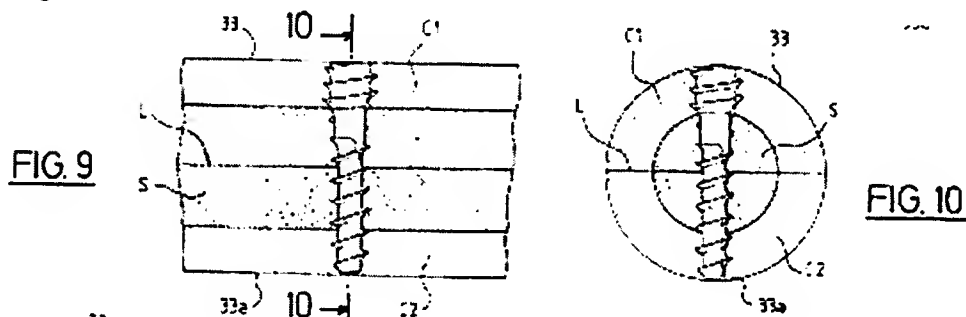
Claims 21, 35 and 40 recite a surgical tack for attaching a material to tissue including, *inter alia*, a head having a drive thread formed on an outer surface thereof, "wherein the drive thread is configured to prevent threaded engagement of the head into tissue," "wherein the first thread is configured to prevent threaded engagement of tissue," and "wherein the head is configured to prevent threaded engagement of tissue by the drive thread," respectively.

As shown in Figs. 1 and 3 of Augagneur, reproduced hereinbelow, Augagneur discloses a screw device for the coaptation of two small bone fragments having a long threaded distal part 1

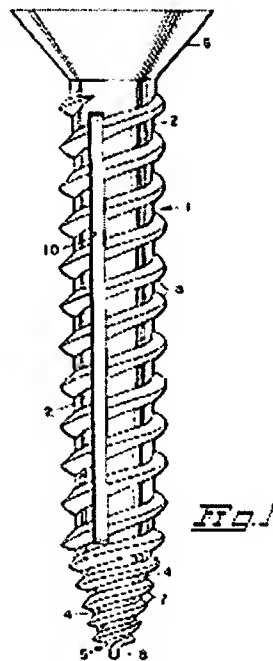
and a short threaded proximal head part 2. Long threaded distal part 1 includes a first thread 10 and short threaded proximal head part 2 includes a second thread 20. Between distal part 1 and proximal part 2, the bone screw is provided with a smooth section 3. The screw operates to compress two bone fragments through the action of the differing pitches of thread portions 1 and 2. During a complete revolution of the screw about its longitudinal axis, the travel of distal part 1 is higher than the travel of proximal part 2. Each lower end of distal part 1 and proximal part 2 include a lateral notch 13, 23, respectively. Notches 13, 23 are diametrically opposite each other and are intended to permit self-tapping into bone.



With reference to FIGS. 9 and 10 of Augagneur, because head 2 of the bone screw is entirely threaded, the bone screw is completely embedded within the bone, thereby preventing trauma to surrounding tissue.



With reference now to Fig. 1 of Vellier, reproduced herebelow, Vellier discloses a wood screw 1 having a cylindrical shank 2 of uniform diameter provided with main thread 3, and tapered as at 4 to a pointed bottom end indicated generally as 5. Tapered bottom end 4 of screw shank 2 is provided with threads 7 of gradually diminishing major diameter and of less pitch than that of main threads 3. A chip-receiving slot 10 extends substantially through the length of cylindrical shank 2 and the threads 3 therearound, and terminating at its bottom end. Tapering threads 7 of wood screw 1 hold the screw against any misalignment by an off-center pull or rotational drag created by the single chip-slot 10.



Contrary to the Examiner's assertion, Augagneur does not disclose a surgical tack for attaching a material to tissue. Instead, as discussed in detail above, Augagneur discloses a bone screw configured to compress two bone fragments together through operation of differing thread pitches. In fact, Augagneur teaches away from the use of the bone screw for attaching any material to bone in that head 2 of the screw is entirely threaded and is received completely within

bone.

Vellier does not provide any disclosure, that when taken in proper combination with Augagneur, discloses a surgical tack for attaching a material to tissue including, a head having a drive thread formed on an outer surface thereof, “wherein the first thread is configured to prevent reception of the head into tissue”, as recited in amended claims 21, 35 and 40.

Since claims 23, 24, 27, 32-34, 48 and 49 depend from amended claim 21, claim 36 depends from claim 35, and 41- 44 depend from amended claim 40, it is respectfully submitted that these claims are also in condition for allowance.

Furthermore, Augagneur, taken alone or in any proper combination with Vellier, fails to disclose a tack including a drive (first) thread “configured to facilitate removal of the tack”, as recited in amended claims 33 and 44, and a barrel portion that includes “a smooth or rounded leading edge”, as recited in claims 32 and 43. As discussed above, the threads formed the bone screw of Augagneur are completely received within the bone, therefore they are not capable of being used to remove the bone. Furthermore, the bone screw of Augagneur and the wood screw of Vellier each include sharp or pointed leading edges such that they are self-tapping, therefore they do not include smooth or rounded leading edges.

In the Office Action, claims 25 and 28 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Augagneur in view of U.S. Patent No. 5,169,400 to Mühling et al. (hereinafter “Mühling”). The Office Action stated that Augagneur discloses a throughbore, but fails to disclose that the throughbore has a D-shaped cross-section. According to the Office Action, it would have been obvious to modify the throughbore of Augagneur to include a shape that better applies the torque of an insertion tool as disclosed in Mühling.

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As discussed hereinabove, Augagneur fail to disclose or suggest the surgical tack recited in amended claim 21. Adding the non-circular throughbore of Mühling fails to cure the deficiencies of Augagneur. Mühling fails to disclose or suggest any features that, in combination with Augagneur, would suggest the surgical tack recited in amended claim 21. Since claims 25 and 28 depend from independent claim 21, it is respectfully submitted that these claims are in condition for allowance.


Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. § 1.16 and/or 1.17 at any time during the pendency of this application, or credit any overpayment of such fee(s) to Deposit Account No. 21-0550. Also, in the event any extensions of time for responding are required for the pending application(s), please treat this paper as a petition to extend the time as required and charge Deposit Account No. 21-0550 therefor.

Prompt and favorable action on these claims, namely claims 21, 23-28, 32-36, 40-44, 48 and 49 is earnestly requested. Should the Examiner desire a further telephonic interview to resolve any outstanding matters, the Examiner is sincerely invited to contact the undersigned at (631) 501-5718.

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